



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,105	11/20/2003	Hirokazu Yamamoto	KM-US030558	1104
22919 7590 11/07/2008 GLOBAL IP COUNSELORS, LLP 1233 20TH STREET, NW, SUITE 700 WASHINGTON, DC 20036-2680				
EXAMINER				
HA, NGUYEN Q				
ART UNIT		PAPER NUMBER		
2854				
MAIL DATE		DELIVERY MODE		
11/07/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/707,105

**Applicant(s)**

YAMAMOTO ET AL.

**Examiner**

'Wyn' Q. HA

**Art Unit**

2854

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8 and 10-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/5/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Claim Rejections - 35 USC § 112***

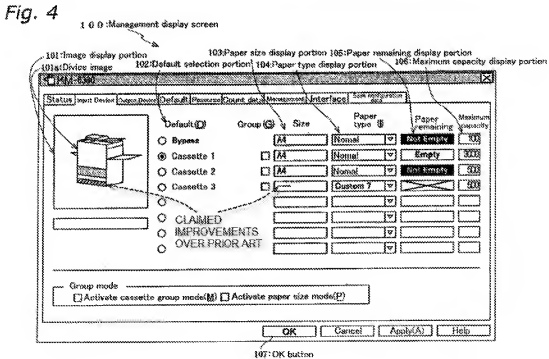
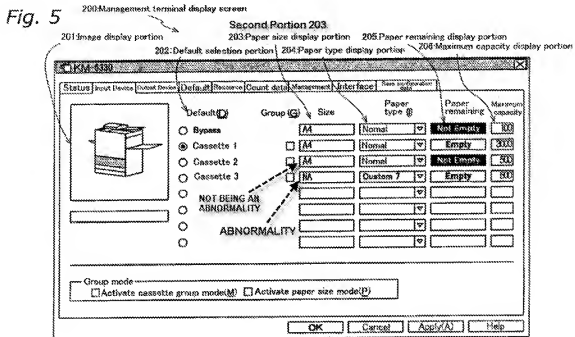
**Claims 1-4, 6-8 and 10-20** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The newly added limitation “the abnormality display unit displaying an abnormality by replacing characters representing **a paper size** to a symbol or an image in **a paper remaining** display location of a paper supply unit or paper discharge unit in which an abnormality has been detected by the abnormality detection unit, the abnormality display unit displaying the characters representing a paper size in which an abnormality is not being detected” cannot be understood, and appears to contradict the specification which discloses that characters representing a paper size is located in a paper size display portion.

For purposes of examination, the newly added limitation is interpreted to read: --the abnormality display unit displaying an abnormality by replacing characters representing **a paper size** to a symbol or an image in **a paper size** display location of a paper supply unit or paper discharge unit in which an abnormality has been detected by the abnormality detection unit, the abnormality display unit displaying the characters representing a paper size in which an abnormality is not being detected--.

Namely, referring to Applicant disclosed or admitted prior art fig. 5 reproduced below, it appears that Applicants want to replace the characters

"NA", representing an abnormal paper size in a paper size display location 203,  
 with a symbol "---" or an image, as shown in disclosed Fig. 4 reproduced below.



Art Unit: 2854

As such, in the paper size display portion 203 (Fig. 5), when a symbol "----" or the like is displayed, the other paper size displays will not be obscured, and the abnormal paper supply unit can be clearly shown...without the use of written words (See application's specification paragraph 0057), as shown in fig. 4.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-4, 6-8, 10-16, 19 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant admitted prior art in view of Masuda et al (US 5,182,597), Itagi et al. (JP 11184590) and Kondo et al. (US 5,586,254).

#### **Claim 1:**

Applicant admitted prior art, as discussed in the Office action of 5/9/2008, teaches an abnormality management device 200 (disclosed prior art fig. 5, reproduced again below) connected via a network to an image forming device that includes a plurality of selectively used paper supply units or paper discharge units, the abnormality management device managing abnormalities in the image forming device and comprising:

a display unit 200 having



Art Unit: 2854

an abnormality display unit 200 (display screen 200 comprising the image display portion 201, the second portion 203, default selection portion 202, paper type display portion 204, paper remaining display portion 205, etc.) that displays the location of the paper supply unit or paper discharge unit in which an abnormality can be detected; wherein

the abnormality display unit 200 displaying an abnormality by placing characters "NA" representing an abnormal paper size in a paper size display location 203 of a paper supply unit in which an abnormality has been detected by the abnormality detection unit, the abnormality display unit displaying the characters "4A" representing a paper size in which an abnormality is not being detected.

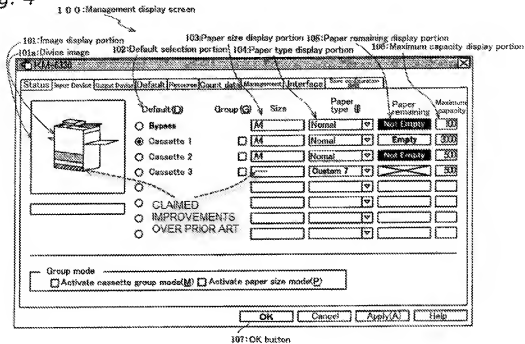
Applicant admitted prior art doesn't teach:

an operation unit restricting operation of the paper supply unit selection when at least one abnormality has been detected, and

the abnormality display unit 200 displaying with emphasis the location of the paper supply unit or paper discharge unit in which an abnormality was detected (as illustrated in fig. 4 "highlighted bottom tray," reproduced again below);

wherein the characters "NA" representing an abnormal paper size is replaced with a symbol "----" or an image (as also illustrated in fig. 4 below).

Fig. 4



Masuda, as discussed in the Office action of 5/ 9/2008, teaches an abnormality management device (Fig. 2, reproduced below) comprising: a display unit having an image display portion (located far left of fig. 2) that displays an image of an image forming device in which a plurality of paper supply units 66 are visually distinguished from each other, and a second portion 72 that shows an operation state (being normal or abnormal) in one of the paper supply units 66 (Col. 12 line 63 – col. 13 line 7).



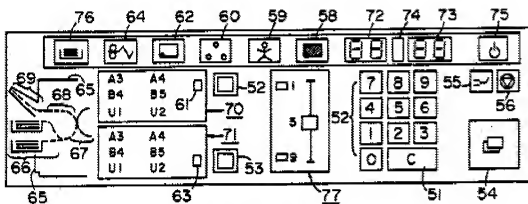


FIG. 2

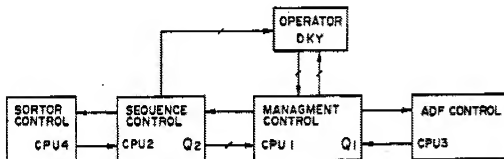


FIG. 3

Masuda further teaches an operation unit CPU2 (Fig. 3, reproduced above) restricting operation of the paper supply unit selection when at least one abnormality, e.g. jam, has been detected (Col. 10 lines 67-68 "No setting can be affected even by depression of the keys, at the time of the paper jamming..." Col. 12 lines 4-6 "keys 51 to 55 [each of keys 52 and 53 selects an upper or lower paper supply unit] do not work at all for input, even if they are turned on at the time of the paper jamming..."), in order to provide a user with an opportunity to verify various information, such as

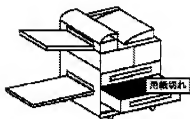
Art Unit: 2854

a jam location or remaining amount of copy paper, that might have caused the abnormality (Col. 4 lines 34-40). As a result, further problems may be prevented.

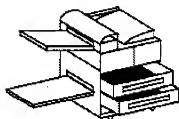
It would have been obvious to one of ordinary skill in the art at the time the present invention was made to provide the disclosed (Applicant admitted) prior art abnormality management device with an operation unit restricting operation of the paper supply unit selection when at least one abnormality, e.g. jam, has been detected, in order to provide a user with an opportunity to verify various information, such as a jam location or remaining amount of copy paper, that might have caused the abnormality, in view of Masuda. As a result, further problems may be prevented.

Itagi, as discussed in the Office action of 5/99/2008, teaches an abnormality management device comprising an abnormality display unit that displays with emphasis the location of the paper supply unit in which an abnormality was detected (See Itagi's figs. 13, 14 & 16, reproduced below) in order to provide a user with a friendly piece of equipment that shows locations of the abnormalities, e.g. paper jams, generated on a particular paper supply unit at a glance (Itagi's paragraph 0061).

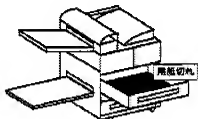
【図13】



(a)

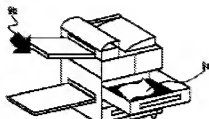


(b)

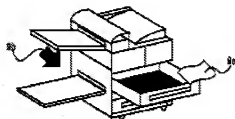


(c)

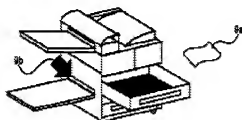
【図14】



(a)

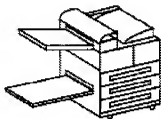


(b)

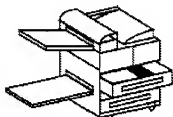


(c)

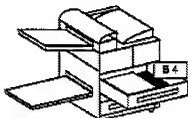
【図16】



(a)



(b)



(c)

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to have the disclosed prior art abnormality display unit 200 display with emphasis the location of the paper supply unit or paper discharge unit in which an abnormality was detected; in order to provide a user with a friendly piece of equipment that shows a location a paper jam, etc. generated on a particular paper supply unit at a glance, in view of Itagi.

Kondo teaches an abnormality management device comprising an abnormality display unit displaying an abnormality by changing display symbols, or the like, so that the location of the abnormality can be distinguished from normal locations (Col. 26 lines 4-18: "the location of the fault is displayed on the displayed drawing of the net work configuration so that the location can be distinguished from normal locations, for example, by changing display symbols or the like. Col. 28 lines 10-14: "The display of the location of the fault may be made by changing the display symbols or the like").

It would have been obvious to one of ordinary skill in the art at the time the present invention was made to recognize that changing the characters "NA" (or any other characters or symbols), which may represent an abnormal paper size or an abnormality in the disclosed prior art abnormality display unit 200, to a symbol (or another symbol or an image) would as well distinguish which paper supply unit (a location) containing the abnormal paper, in view of Kondo.

As a result, in the paper size display portion 203 (Fig. 5 above), when a symbol is displayed in place of the characters "NA" in view of Kondo, the other paper size displays "A4" will not be obscured as well, and the abnormal paper supply unit can be clearly shown without the use of written words.

Note: Kondo's abnormality management device may be connected via a network to an image forming device (Kondo's Abstract: "A system for operating and managing a network in which plural computers and network devices are connected to each other. Col. 18 lines 12- 14: "The peripheral devices may include, for example, printers, facsimile machines, scanners, and the like").

Claim 2:

Applicant admitted prior art, as modified, teaches the abnormality management device set forth in claim 1, further comprising

a default paper supply unit determining unit 202 (See disclosed prior art fig. 5 above and application specification paragraph 0008) that determines whether one paper supply unit from amongst the plurality of the paper display units has been selected as a default, and

a default display unit 201 (same fig. 5 and paragraph 0008) that displays with emphasis the position of the paper supply unit selected as a default on the image of the image forming device by means of a representation that is different from a representation used to display the paper supply unit in which an abnormality was detected.

Claim 3:

Applicant admitted prior art, as modified, teaches the abnormality management device set forth in claim 1, further comprising

an out of paper determining unit that determines based upon equipment data acquired from the image forming device whether any of the plurality of paper supply units have run out of paper, and an out of paper display unit that displays with emphasis the position of a paper supply unit that has run out of paper on the image of the image forming device by means of a representation that is different from a representation used to display the paper supply unit in which an

Art Unit: 2854

abnormality was detected (Itagi's fig. 13 shows "no paper" in one or several of the paper trays. Itagi's Paragraph 0059: "the animation not only of the components which constitute the image but also of non-component parts such as a form or paper shown in fig. 14).

Claim 4:

Applicant admitted prior art, as modified, teaches the abnormality management device set forth in claim 1, further comprising a paper size display unit 203 (See disclosed prior art fig. 5 & application specification paragraph 0008) that displays based upon equipment data acquired from the image forming device the size of paper stored in each paper supply unit,

wherein the abnormality display unit displays an abnormality by means of a symbol or an image in a paper size display location 203 of a paper supply unit in which an abnormality has been detected by means of the abnormality detection unit (See discussion in claim 1 "Kondo teaches...").

Claim 6:

Applicant admitted prior art, as modified, teaches the abnormality management device set forth in claim 1, further comprising a sound abnormality generating unit that generates a sound when an abnormality is detected in a paper supply unit or a paper discharge unit by the abnormality detection unit (Masuda col. 12 lines 4-9 "The abovementioned keys 51 to 55 do not at all work for input, even if they are turned on at

Art Unit: 2854

the time of the paper jamming and the service-man-call. When these keys are effectively turned on [when, for example, a jam is detected], very brief oscillating sound is generated").

Claim 7 (parallel to claim 1):

Applicant admitted prior art, as modified, teaches an abnormality management system 200 for an image forming device (See disclosed prior art fig. 5 & specification paragraph 0010), comprising all the elements being claimed.

Claims 8 and 10-12 (parallel to claims 2-4 and 6):

Applicant admitted prior art, as modified, teaches the abnormality management system set forth in claim 7, comprising all the elements being claimed.

Claim 13:

Applicant admitted prior art, as modified, teaches all that is claimed, including a computer readable medium comprising:

an abnormality management program (See Applicant disclosed prior art specification paragraph 0007 "management program") is executed in a computer that is connected via a network to an image forming device that includes a plurality of selectively used paper supply units or paper discharge units, the abnormality management program managing abnormalities in the image forming



Art Unit: 2854

device and comprising a display function showing all that is being claimed (and discussed in claim 1).

Claims 14-16:

Applicant admitted prior art, as modified, teaches the abnormality management device set forth in claim 1, or claim 7, or claim 13, wherein emphasis includes a *differentiating design* (See Itagi's figures above)

Claims 19 and 20:

Applicant admitted prior art, as modified, teaches the abnormality management device set forth in claim 1 or claim 7, wherein the abnormality detection unit represents an abnormality using a non-alphabetical symbol, such as code number 1-3 or 11-13, etc., in the second portion 203 (Masuda col. 12 line 64 - col. 13 line 7 "this segment indicator 72 indicates the sensor in trouble as detected in the examination operation of the sensor which is carried out by the self-examination switch 49, in terms of a code number. In more detail, the sensor for detecting the oblique paper movement from the upper cassette is indicated by the code numbers 1-3, the sensor for detecting the oblique movement from the lower cassette is indicated by the code numbers 11-13, the image transfer sensor is denoted by a code number 4, the discharge sensor is denoted by a code number

Art Unit: 2854

5, the register sensor is denoted by a code number 6, and "no abnormality" is denoted by a code number 88."

Apparently, the reason for the code number being a displayed symbol for an abnormality, as taught by Masuda, is to facilitate further trouble shooting and/or determining a kind of abnormality, e.g. a paper jam in a paper supply unit or an oblique paper movement in a same paper supply unit. In other words, a paper jam or an oblique movement a paper in a same paper supply unit can be positively differentiated by different code numbers. Said differentiation in a same paper supply unit might not be possible otherwise).

**Claims 17 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant admitted prior art in view of Masuda, Itagi and Kondo, as applied to claim 1, and further in view of Hosaka (JP 56154751 A).

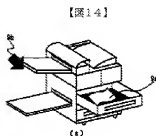
Applicant admitted prior art, as modified, teaches the abnormality management device set forth in claim 1, including the abnormality detection unit detecting a condition of the paper supply unit (Itagi Paragraph [0031] "the detection means which consists of a sensor which detects a paper jam, the switching condition of a form piece and a tray, etc)."

Art Unit: 2854

Applicant admitted prior art, as modified, doesn't expressly teach the (displayed) abnormalities in the paper tray unit consist of paper jams and improperly mounted cassettes.

Hosaka, as discussed in the Office action of 5/9/2008, teaches sensing and controlling abnormalities in an image forming device, the abnormalities include "presence of cassettes of recording papers, presence of recording papers in them, arrival of the papers at a given point, feed and discharge of originals (i.e. conveyance or jam states), and the like states are detected by sensors in a copying apparatus, and start, stop, continuation, etc. of record processing actions are controlled by a microcomputer MPU. Sensor PS1 for detecting attachment of a cassette and sensor MS1 are combined via transistor Tr in series to connect them to detection port P1-1of MPU, and as for the other sensors, similar connections are made, thus permitting the port number to be reduced remarkably, a sensor connection system to be simplified, and readout efficiency to be enhanced (Abstract)."

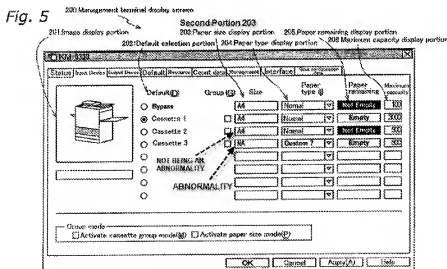
It would have been obvious to one of ordinary skill in the art at the time the present invention was made to include a state of improperly mounted cassettes as an abnormality and further to combine the detection/display of the state of paper jams with the detection/display of the state or condition of the paper supply unit (absent or improperly mounted). That is, for example, both the states of paper jams and/or improperly mounted upper cassette would be indicated by the displayed image shown in Itagi's fig. 14a (reproduce again below). This would reduce the number of necessary input and output ports, as taught by Hosaka.



### Response to Arguments

Applicant's arguments with respect to the independent claims 1, 7 and 13 have been considered but are moot in view of the new ground(s) of rejection.

With respect to Applicant arguments, it is clear that, as discussed in claim 1 above, the disclosed conventional abnormality display unit 200 (shown in the disclosed prior art fig. 5, reproduced again below) displays the characters "4A" representing a paper size when an abnormality is not being detected. So, if the bottom cassette 3 were to contain normal paper size, e.g. 4A, the display unit 200 would be displaying "4A" in the portion 203, and "Normal" in the portion 204, as being claimed.



***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to 'Wyn' Q. HA whose telephone number is (571)272-2863. The examiner can normally be reached on Monday - Friday, from 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2854

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NQH

/Jill E. Culler/  
Primary Examiner, Art Unit 2854